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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,987	12/09/2003	Sang Chul Yoon	2832-0167P	2750

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EXAMINER

WALSH, JOHN B

ART UNIT	PAPER NUMBER
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2151

NOTIFICATION DATE	DELIVERY MODE
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09/04/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/729,987	Applicant(s) YOON ET AL.	
	Examiner John B. Walsh	Art Unit 2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6, 8-19 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2001/0036192 to Chiles et al. in view of U.S. Patent No. 4,287,939 to Pohl et al.

As concerns claim 1, an integrated controlled multi-air conditioner system comprising: a plurality of groups of indoor units (0035); a plurality of outdoor units (0034; 0035) connected with said indoor unit groups, respectively; at least one local control means (115,415,1215) connected in common with said outdoor units over an internal network for controlling operations of said outdoor units; and protocol conversion means (0049) connected with said local control means, said protocol conversion means converting different communication protocols of data transmitted and received between an external Internet network and said internal network into each other to transfer a control command received over said external Internet network to at least one of said outdoor units.

Chiles et al. '192 disclose the client device may be located inside and/or outside (0034) and may comprise HVAC system (0035). Chiles et al. '192 do not explicitly disclose the air conditioning unit comprises an indoor and outdoor unit.

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Pohl et al. '939 teach an HVAC system comprising a plurality (col. 4, lines 65-67) of units comprising indoor units and outdoor units (col. 1, lines 42-48).

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide a plurality of air conditioning units as taught by Pohl et al. '939, in order to provide additional heating/cooling units to increase the desired effect. Such a modification is a combination of known elements yielding predictable results.

As concerns claims 2 and 15, further comprising integrated control means (0036; 240) for transferring a control command to said outdoor units via said protocol conversion means to control said outdoor units in an integrated manner.

As concerns claims 3 and 16, wherein said integrated control means is assigned a public Internet protocol (IP) address and a private IP address so that it is accessible from said external Internet network and internal network, respectively (0084,0085,0086).

As concerns claims 4 and 17, wherein said protocol conversion means is assigned a public IP address and a private IP address so that it is accessible from said external Internet network and internal network, respectively (0081,0084,0085,0086).

As concerns claims 5 and 18, further comprising IP translation/sharing means assigned a public IP address so that it is controllable from said external Internet network, said IP translation/sharing means translating said public IP address contained in a control command received from said external Internet network into a private IP address and transferring the received control command to said integrated control means or protocol conversion means on the basis of the translated private IP address (0081,0084,0085,0086).

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As concerns claims 6 and 19, wherein said IP translation/sharing means is adapted to store a table including private IP addresses and port numbers assigned respectively to all devices connected to said internal network (0067,0081,0086).

As concerns claims 8 and 21, wherein said integrated control means includes: a timer for establishing synchronization (inherent communication will have synchronization) of a control system of said integrated control means; a key input unit (268) for inputting commands for control of the operations of said outdoor units; a display unit (270) for displaying the control commands inputted through said key input unit and the associated outdoor unit/indoor unit control states; a central processing unit (252) for controlling signal input and output of said key input unit and display unit and transmission and reception of data over said internal network; and a wired interface (0012) for transmitting and receiving data between said central processing unit and said protocol conversion means according to an Ethernet protocol (figure 6; 618, 620).

As concerns claims 9 and 22, wherein said integrated control means further includes a wireless interface for transmitting and receiving data in a wireless (0006) manner based on a wireless Ethernet protocol (figure 6; 618, 620).

As concerns claims 10 and 23, wherein said protocol conversion means includes: an Internet interface for transmitting and receiving data to/from said external Internet network according to an Ethernet protocol (figure 6; 618, 620); a serial communication interface for transmitting and receiving data to/from said local control means according to a serial communication protocol (0008); and communication control means for controlling transmission and reception of data between said Internet interface and said serial communication interface (0049).

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As concerns claims 11 and 24, wherein said communication control means includes: an address storage unit for storing a private IP address and port number assigned to said local control means; and a protocol converter for converting different communication protocols of data transmitted and received between said Internet interface and said serial communication interface into each other (0008).

As concerns claims 12 and 25, wherein said communication control means further includes a graphic user interface (GUI) storage unit for storing a GUI-based air conditioner control program for enabling a user to remotely control said local control means or outdoor units using an Internet terminal accessible to said external Internet network (0036).

As concerns claims 13 and 26, wherein said GUI storage unit is adapted to send said air conditioner control program over said external Internet network in response to a request from said Internet terminal (0036).

As concerns claim 14, an integrated controlled multi-air conditioner system comprising: a plurality of groups of indoor units (0035); a plurality of outdoor units (0034; 0035) connected with said indoor unit groups, respectively; a plurality of local control means (240) connected with said outdoor units over an internal network for controlling operations of said outdoor units, respectively; and a plurality of protocol conversion means (0049) networked with said plurality of local control means, respectively, each of said plurality of protocol conversion means converting different communication protocols of data transmitted and received between an external Internet network and said internal network into each other to transfer a control command received over said external Internet network to a corresponding one of said outdoor units.

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3. Claims 7 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2001/0036192 to Chiles et al. and U.S. Patent No. 4,287,939 to Pohl et al. as applied above in view of U.S. Patent No. 6,141,339 to Kaplan et al.

Chiles et al. '192 as modified do not explicitly disclose a hub.

Kaplan et al. '339 teach a hub (204).

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide the network of Chiles et al. '192 with a hub, as taught by Kaplan et al. '339, in order to provide a means for connecting multiple devices. Such a modification is merely a combination of known elements yielding predictable results.

Response to Arguments

4. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John B. Walsh whose telephone number is 571-272-7063. The examiner can normally be reached on Monday-Thursday from 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John B. Walsh/
Primary Examiner, Art Unit 2151